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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/617,761	07/14/2003	Kazuhiro Shibatani	44319-068	4041

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EXAMINER	
SELBY, GEVELL V	
ART UNIT	**PAPER NUMBER**
2622	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/04/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/617,761	SHIBATANI ET AL.	
	Examiner	Art Unit	
	Gevell Selby	2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *14 July 2003* is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1, 9-14, 16, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Poland et al., US 6,681,195, in view of Matsushita, JP 07-105481.

In regard to claim 1, Poland et al., US 6,681,195, discloses a monitor device for displaying a front scene of a moving body, comprising:

an image forming section (see figure 1, element 142) for forming a two dimensional image of the front scene on a image plane (see column 7, lines 8-15);

an image sensor (see figure 1, element 140) for photo-electrically converting the two-dimensional image into electric image data (see column 6, lines 5-15);

a speed sensor (see figure 1, element 130) for detecting running speed of the moving body (see column 5, lines 55-67);

an image area selecting section (see figure 1, element 112) for processing the image data to select an area of the image formed by the image forming section (see column 8, lines 40-53);

an image enlarging section (see figure 1, element 160) for processing the image data processed by the image area selecting section to enlarge the image of the selected area (see column 10, lines 42-50); and

a display (see figure 1, element 112) for displaying the image of the area enlarged by the image enlarging section (see column 8, lines 25-28).

The Poland reference does not disclose the following:

a zoom ratio determining section for determining a zoom ratio in accordance with the detected running speed;

the image area selecting section processes the image data to select, in accordance with the determined zoom ratio, an area of the image formed by the image forming section; and

the image enlarging section processes the image data processed by the image area selecting section to enlarge the image of the selected area with the zoom ratio determined by the zoom ratio determining section.

Matsushita, JP 07-105481, discloses a monitor device comprising:

a zoom ratio determining section (image processing section 14) for determining a zoom ratio or angle in accordance with the detected running speed (see para. 28);

the image area selecting section (zoom control section 15) processes the image data to select, in accordance with the determined zoom ratio or angle, an area of the image formed by the image forming section (see para. 29); and

the image enlarging section (image processing section 14) processes the image data processed by the image area selecting section to enlarge the image of the selected area with the zoom ratio or angle determined by the zoom ratio or angle determining section (see para 31-32).

It would have been obvious to one of ordinary skill in the art to have been motivated at the time of invention to modify Poland et al., US 6,681,195, in view of Matsushita, JP 07-105481, to have a zoom ratio determining section for determining a zoom ratio in accordance with the detected running speed; the image area selecting section processes the image data to select, in accordance with the determined zoom ratio, an area of the image formed by the image forming section; and the image enlarging section processes the image data processed by the image area selecting section to enlarge the image of the selected area with the zoom ratio determined by the zoom ratio determining section, in order to automatically adjust the zoom according to the speed to better identify the imaged object.

In regard to claims 9, Poland et al., US 6,681,195, in view of Matsushita, JP 07-105481, discloses the monitor device according to claim 1. The Poland reference discloses wherein the speed sensor includes a speed classifying section (see figure 1, element 170) for determining which of a plurality of speed ranges a detected speed belongs (see column 10, lines 53-67: commercial vehicle speeding range and private vehicle speeding range), the zoom ratio determining section determines the zoom ratio in accordance with the determined range (see column 11, lines 29-31: classification data is used to determined whether the camera should zoom in and capture an image and it is

implied that different classified vehicles would have license plates at different heights, therefore requiring different zoom ratios), the image area selecting section selects area of the image in accordance with the determined range (see Matsushita: para 29).

In regard to claims 10, Poland et al., US 6,681,195, in view of Matsushita, JP 07-105481, discloses the monitor device according to claim 9. The Poland reference discloses wherein the speed classifying section determines which of a first (above 55 mph) and a second speed ranges (above 65 mph) the detected speed belongs, the speed of the second range being higher than that of the first range (see column 10, lines 53-67: 65 > 55); it is implied the zoom ratio determining section determines a first zoom ratio when the detected speed is within the first range, and determines a second zoom ratio when the detected speed is within the second range, the second zoom ratio being larger than the first zoom ratio because the camera would have to zone more to capture the license plates on the smaller private vehicles than the larger commercial ones; and it is implied the image area selecting section processes the image data to select a first area of the two dimensional image when the first zoom ratio is determined, and select a second area of the two dimensional image when the second zoom ratio is determined, the second area being smaller than the first area because the second image is zoomed more than the first.

In regard to claim 11, Poland et al., US 6,681,195, in view of Matsushita, JP 07-105481, discloses the monitor device according to claim 1. The Poland reference discloses further comprising a resizing section for processing the image data of the selected area to enlarge the image to be displayed in entire area of a display screen of the

display (see column 8, lines 29-34: the zoom image is displayed on the entire display section of the display).

In regard to claims 12 and 20, Poland et al., US 6,681,195, in view of Matsushita, JP 07-105481, discloses the monitor device according to claims 1 and 11, respectively. The Poland reference further comprising an object detecting unit (vehicle classification circuit 170) for detecting whether the image data include a data of an image of an unexpected object (see column 10, line 53 to column 11, line 19), and a speed control section for controlling the moving body in accordance with the detection by the object detecting unit (see column 17,lines 1-17: when the vehicle is detected the operator controls the speed of the object to stop it).

In regard to claim 13, Poland et al., US 6,681,195, in view of Matsushita, JP 07-105481, discloses the monitor device according to claim 12, wherein the speed control section controls the moving body to reduce the speed of the moving body when the unexpected object is detected in the image data (see column 17,lines 1-17: when the vehicle is detected the operator controls the speed of the object to stop it).

In regard to claim 14, Poland et al., US 6,681,195, in view of Matsushita, JP 07-105481, discloses the monitor device according to claim 2. The Poland reference discloses wherein the image forming section is arranged to form an image of the front scene, with the image of an actual or imaginary converging point of the lane of the running path for the moving body being at the center of a frame of the formed image (see figure 2 the running path of the car converges in the center of the image).

In regard to claim 16, Poland et al., US 6,681,195, discloses a monitor device for displaying a front scene of a moving body, comprising:

an image forming section (see figure 1, element 142) for forming a two dimensional image of the front scene on a image plane (see column 7, lines 8-15);

an image sensor (see figure 1, element 140) for photo-electrically converting the two-dimensional image into electric image data (see column 6, lines 5-15);

a speed sensor (see figure 1, element 130) for detecting running speed of the moving body (see column 5, lines 55-67);

an image sensor driving section (see figure 1, element 110) for driving the image sensor to change the photo-electrically converted area of the two dimensional image in accordance with the determined zoom ratio (see column 6, line 57 to column 7,line 20: processor commands the lens to be driven according imaging parameters such as resolution can be automatically set to obtain a clear, high quality image);

an image enlarging section (see figure 1, element 160) for processing the image data processed by the image area selecting section to enlarge the image of the selected area (see column 10, lines 42-50); and

a display (see figure 1, element 112) for displaying the image of the area enlarged by the image enlarging section (see column 8, lines 25-28).

The Poland reference does not disclose the following:

a zoom ratio determining section for determining a zoom ratio in accordance with the detected running speed; and

the image enlarging section processes the image data processed by the image area selecting section to enlarge the image of the selected area with the zoom ratio determined by the zoom ratio determining section.

Matsushita, JP 07-105481, discloses a monitor device comprising:

a zoom ratio determining section (image processing section 14) for determining a zoom ratio or angle in accordance with the detected running speed (see para. 28); and

the image enlarging section (image processing section 14) processes the image data processed by the image area selecting section to enlarge the image of the selected area with the zoom ratio or angle determined by the zoom ratio or angle determining section (see para 31-32).

It would have been obvious to one of ordinary skill in the art to have been motivated at the time of invention to modify Poland et al., US 6,681,195, in view of Matsushita, JP 07-105481, to have a zoom ratio determining section for determining a zoom ratio in accordance with the detected running speed; and the image enlarging section processes the image data processed by the image area selecting section to enlarge the image of the selected area with the zoom ratio determined by the zoom ratio determining section, in order to automatically adjust the zoom according to the speed to better identify the imaged object.

In regard to claims 19, Poland et al., US 6,681,195, in view of Matsushita, JP 07-105481, discloses the monitor device according to claim 11. The Poland reference discloses wherein the speed sensor includes a speed classifying section (see figure 1, element 170) for determining which of a plurality of speed ranges a detected speed belongs (see column 10, lines 53-67: commercial vehicle speeding range and private vehicle speeding range), the zoom ratio determining section determines the zoom ratio in accordance with the determined range (see column 11, lines 29-31: classification data is used to determined whether the camera should zoom in and capture an image and it is implied that different classified vehicles would have license plates at different heights, therefore requiring different zoom ratios), the image area selecting section selects area of the image in accordance with the determined range (see Matsushita: para 29), and the monitor device further comprising a resizing section for processing the image data of the selected area to enlarge the image to be displayed in entire area of a display screen of the display (see column 8, lines 29-34: the zoom image is displayed on the entire display section of the display).

3. Claims 2-6, 15, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Poland et al., US 6,681,195, in view of Matsushita, JP 07-105481, as applied to claim 1 above, and further in view of Fukuda, JP 09-202180.

In regard to claims 2, 17, and 18 Poland et al., US 6,681,195, in view of Matsushita, JP 07-105481, discloses the monitor device according to claims 1, 1, and 12. The Poland and Matsushita references do not disclose wherein the image forming section or the lens characteristics control section includes a distortion lens having characteristics

to form an image with its height of image being larger in central area and smaller in peripheral area.

Fukuda, JP 09-202180, discloses a monitor device wherein the image forming section includes a distortion lens (fisheye lens 21) having characteristics to form an image with its height of image being larger in central area and smaller in peripheral area (see para. 7).

It would have been obvious to one of ordinary skill in the art to have been motivated at the time of invention to modify Poland et al., US 6,681,195, in view of Matsushita, JP 07-105481, and farther in view of Fukuda, JP 09-202180, to have the image forming section or the lens characteristics control section includes a distortion lens having characteristics to form an image with its height of image being larger in central area and smaller in peripheral area, in order to capture an image of a larger area in the center of the image taking region.

In regard to claim 3, Poland et al., US 6,681,195, in view of Matsushita, JP 07-105481, and farther in view of Fukuda, JP 09-202180, discloses the monitor device according to claim 2. The Poland reference discloses wherein the image forming section is arranged to form an image of the front scene, with the image of an actual or imaginary converging point of the lane of the running path for the moving body being at the center of a frame of the formed image (see figure 2 the running path of the car converges in the center of the image).

In regard to claim 4, Poland et al., US 6,681,195, in view of Matsushita, JP 07-105481, and farther in view of Fukuda, JP 09-202180, discloses the monitor device

according to claim 2. The Matsushita reference discloses further comprising a lens characteristics control section for controlling the characteristics of the distortion lens such that the height of the image becomes larger as the speed of the moving body increases (see abstract).

In regard to claim 5, Poland et al., US 6,681,195, in view of Matsushita, JP 07-105481, and farther in view of Fukuda, JP 09-202180, discloses the monitor device according to claim 4. The Matsushita reference discloses wherein the lens characteristics control section controls the characteristics of the distortion lens such that the ratio of changing of the height of image per unit change of angle of view is larger when the speed of the moving body is high (see abstract).

In regard to claim 6, Poland et al., US 6,681,195, in view of Matsushita, JP 07-105481, and farther in view of Fukuda, JP 09-202180, discloses the monitor device according to claim 2. The Poland and Matsushita references do not disclose an image data processing section for processing the image data to correct distortion of the image taken by the distortion lens.

The Fukuda reference discloses further comprising a coordinate transformation circuit 31 for processing the image data to correct distortion of the image taken by the distortion lens (see abstract).

It would have been obvious to one of ordinary skill in the art to have been motivated at the time of invention to modify Poland et al., US 6,681,195, in view of Matsushita, JP 07-105481, and farther in view of Fukuda, JP 09-202180, to have an image data processing section for processing the image data to correct distortion of the

image taken by the distortion lens, in order to correctly depict the captured image to improve the image quality.

In regard to claim 15, Poland et al., US 6,681,195, in view of Matsushita, JP 07-105481, discloses the monitor device according to claim 13. The Poland and Matsushita references do not disclose wherein the image enlarging section for processes the image data processed by the image area selecting section to enlarge the image of the selected area radially towards its periphery with its central image remaining at the center.

Fukuda, JP 09-202180, discloses a monitor device wherein the image forming section includes a distortion lens (fisheye lens 21) having characteristics to form an image with its height of image being larger in central area and smaller in peripheral area (see para. 7). The Fukuda reference discloses further comprising a coordinate transformation circuit 31 for processing the image data to correct distortion of the image taken by the distortion lens (see abstract).

It would have been obvious to one of ordinary skill in the art to have been motivated at the time of invention to modify Poland et al., US 6,681,195, in view of Matsushita, JP 07-105481, and farther in view of Fukuda, JP 09-202180, to have the image enlarging section for processes the image data processed by the image area selecting section to enlarge the image of the selected area radially towards its periphery with its central image remaining at the center, in order to capture an image of a larger area in the center of the image taking region while allowing the user to view enhanced zoomed target center of the image.

4. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Poland et al., US 6,681,195, in view of Matsushita, JP 07-105481, as applied to claim 1 above, and further in view of Oka et al., US 6,828,994.

In regard to claims 7 and 8, Poland et al., US 6,681,195, in view of Matsushita, JP 07-105481, discloses a monitor device according to claim 1, further comprising:

a housing incorporating the image forming section and the image sensor (see figure 3, elements 140, 142).

The Matsushita and Poland reference do not disclose further comprising:

a tilting/panning acceleration sensor for detecting acceleration in the movement of the housing in the tilting/panning direction;

a tilting/panning drive calculating section for calculating amount of driving of the housing to offset the movement of the housing; and

a driving section for driving the housing in accordance with the amount of driving calculated by the tilting/panning drive calculating section.

Oka et al., US 6,828,994, discloses a monitoring device comprising:

a tilting/panning acceleration sensor (moving sensor part 91) for detecting acceleration in the movement of the housing in the tilting/panning direction (see column 9,lines 16-23);

a tilting/panning drive calculating section (controller 92) for calculating amount of driving of the housing to offset the movement of the housing (see column 9,lines 24-38); and

a driving section (pant/tilt mechanism 5) for driving the housing in accordance with the amount of driving calculated by the tilting/panning drive calculating section (see column 5, lines 6-18).

It would have been obvious to one of ordinary skill in the art at the time of invention to have been motivated to modify Poland et al., US 6,681,195, in view of Matsushita, JP 07-105481, and farther in view of Oka et al., US 6,828,994, to have a tilting/panning acceleration sensor for detecting acceleration in the movement of the housing in the tilting/panning direction;

a tilting/panning drive calculating section for calculating amount of driving of the housing to offset the movement of the housing; and

a driving section for driving the housing in accordance with the amount of driving calculated by the tilting/panning drive calculating section, in order to for the user to be able to remotely move the camera, thus giving the camera more imaging range.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US 5,734,337, discloses a method for determining the speed of a moving object with a camera.

US 5,742,699, discloses a monitoring system that determines the speed of a moving object from a remote location.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gevell Selby whose telephone number is 571-272-7369. The examiner can normally be reached on 8:00 A.M. - 5:30 PM (every other Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivek Srivastava can be reached on 571-272-7304. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

gvs

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